



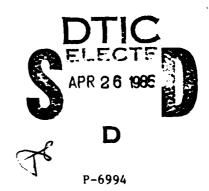
MICROCOPY RESOLUTION TEST CHART NATIONAL BUREAU OF STANDARDS-1963-A



ECONOMIC CONCENTRATION AND THE FEDERAL TAX CODE

William B. Trautman

September 1984



DISTRIBUTION STATEMENT A

Approved for public release;
Distribution Unlimited

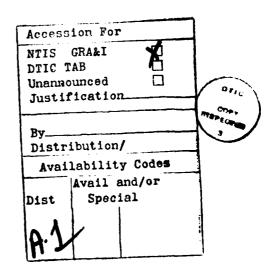
85 4 %

4 22 03.6

ECONOMIC CONCENTRATION AND THE FEDERAL TAX CODE

William B. Trautman

September 1984



ECONOMIC CONCENTRATION AND THE FEDERAL TAX CODE

The federal tax code has been long acknowledged as an instrument of policy implementation. The investment tax credit (ITC) and accelerated depreciation deductions, for example, have been instruments of a policy designed to increase long-run productivity growth by inducing investment in capital assets. The Office of Management and Budget (OMB) calculates the tax expenditure associated with both provisions to be \$132.48 billion for fiscal years 1983-1985. This represents 22.4 percent of OMB's projected federal budget deficit and 4.7 percent of total budget authority over the same period.

In addition to inducing capital investment, these and other provisions of the federal tax code may have the effect of inducing economic concentration. Because of the tax treatment of corporate mergers and acquisitions, a firm may be worth more to an acquiror than to the stockholders of that firm.

Acquisitions: The treatment of corporate acquisitions allows an acquiror to step-up the basis of a transferor's assets to fair market value and take an investment tax credit and accelerated depreciation deductions on that stepped-up basis.

Mergers: The treatment of corporate mergers allows an acquiror to assume the tax attributes of the transferor, including net operating loss, capital loss, and investment tax credit carryovers and depreciation deductions. If an acquiror has a higher marginal tax rate than a transferor, then the present value of these tax benefits is higher for the acquiror.

¹ The Congressional Budget Act of 1974 (Public Law 93-344) defines tax expenditures as "revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax or a deferral of liability."

² Executive Office of the President, Office of Management and Budget, Budget of the United States Government, Fiscal Year 1985, Special Analysis G.

Retained Earnings: The divergence of the individual from the corporate income tax rate induces corporations to retain earnings rather than pay them out as dividends. The treatment of retained earnings in the federal tax code may induce corporate acquisition in order to avoid up to a 38.5 percent tax on improperly retained earnings.

Estate Tax: Estate taxation may force shareholders in closely-held firms to sell out to publicly-held firms in order to avoid problems of valuation and liquidity upon death.

It appears that there is a strong correlation between economic concentration and the ability to take advantage of tax benefits, representing an implicit incentive toward economic concentration. This correlation may be due to increased knowledge and specialization of larger firms; it may be due to the financial ability of larger firms to procure higher quality legal and accounting advice; and it may be due to the greater flexibility of larger firms to structure investments to take maximum advantage of tax benefits. Empirical evidence indicates that larger firms receive a disproportionate share of tax benefits from the investment tax credit (See Appendix I).

REORGANIZATIONS AND ACQUISITIONS: THEORY

A firm which acquires another firm in a statutory reorganization or acquisition does so ideally for the same reason that it purchases a new piece of machinery. The decision to invest capital funds is based on the expectation that the discounted future returns to shareholders will exceed the amount initially invested; in turn, the value of shares of stock should rise to reflect the anticipation of greater returns. Calculation of both expected returns and the appropriate discount rate are problematic, but the elements of the calculations are presumably unaffected by the size of the investment project under consideration, although risk assessment may vary. Profits gained through reorganization or acquisition may arise from several conditions.

Economies of Scale

Reorganizations and acquisitions may be the most effective device for realizing economies of scale reflecting efforts to develop firms of optimum capacity and optimum combination of inputs. Managerial talent, labor and capital may be more efficiently allocated so that the unit cost of producing an output decreases. Input costs may be less because inputs are bought in bulk. There may be a faster diffusion of technology because the level of expertise increases and financing is easier and cheaper. Reorganization and acquisition may, in fact, increase competition by cross-subsidizing into industries where market concentration is high and there are barriers to entry.

Analysts generally agree, however, that concentration is unlikely to yield significant production or marketing economies when the production processes used and the markets served are diverse (i.e. conglomerate merger and acquisition). They argue that the increasing frequency of conglomerate merger and acquisition activity is due to management's greatly expanded capacity for planning and decision-making. Conglomerates can hire higher quality managerial talent, employ a wider range of specialists and make better use of existing technology than smaller firms. They can allocate capital funds among their divisions more efficiently and make investment decisions more rationally.

Henry Manne argues that reorganization and acquisition activity can result in a more efficient allocation of resources. Product market competition is no longer adequate to force managers of many larger firms to operate efficiently. Moreover, the diffused stock ownership of large firms renders stockholder dissatisfaction ineffective in inducing efficient resource allocation. The only natural device to assure efficient resource allocation is the market for corporate control. If effective, it would allow no room for inefficient discretionary behavior that reduces profits, which, in turn, lowers the value of stock. A firm with low stock value becomes a takeover target for a firm that can increase profits simply by replacing inefficient with efficient management.

Borrowing costs decline with the size of a firm due to greater financial stability and scale economies in credit investigations. Large firms can thus refinance the debt of smaller firms at lower economic cost.

The combination of firms with uncorrelated seasonal income streams increases financial stability. For a given firm in a given year, there exists a probability of suffering losses large enough to induce financial failure; that probability is reduced through the combination of firms with uncorrelated income streams. The diversification can be expected to create a true economic gain by reducing risks to creditors.

Economic Concentration and Monopoly Inefficiency

Reorganization and acquisition activity in a firm or industry may result in economic concentration and inefficient allocation of resources due to monopoly. Concentration may result in reciprocity or closed-circuit markets, where firms buy from and sell to other firms on the basis of their diverse needs and resources; this may have a significant impact on small and single product firms. In conglomerates, concentration may result in predatory cross-subsidization, where a firm charges a price below marginal cost in the market of one subsidiary and subsidizes that loss from another more profitable subsidiary. In addition, because some firms are highly centralized and managed from locations distant from their subsidiaries, managerial decisions may be tied up in bureaucratic channels; this may affect the ability of the subsidiary to respond to changing markets.

FEDERAL TAX POLICY: THEORY

A neutral federal tax code is one that does not distort the relative cost of factors, so that both the private and after-tax rates of return will be equated at the margin for all factors. There is theoretical evidence that the federal tax code is not neutral with respect to investment among different factors; it suggests that the federal tax code induces investment in capital assets, mergers and

acquisitions. The federal tax code has the effect of increasing the after-tax rate of return for investment in capital assets, mergers and acquisitions relative to other factors. Increased investment takes place until the after-tax rates of return are equated at the margin for all factors; at this equilibrium, the private rates of return will diverge.

Increased investment in capital assets, reorganization and acquisition may be the intended effect of a policy designed to provide a public good so that the social and after-tax rates of return are equated at the margin for all factors. On the other hand, reorganization and acquisition may be an unintended effect of a policy designed to stimulate capital investment, so that the private, social and after-tax rates of return diverge.

TREATMENT OF RETAINED EARNINGS

The treatment of retained earnings in the federal tax code may induce corporate acquisition activity. In general, firms have an incentive to retain their earnings rather than pay them out as dividends. Once earnings are retained, firms have an incentive to acquire other firms in order to avoid up to a 38.5 percent tax on retained earnings.

After paying corporate income tax on their income, firms may distribute their earnings to shareholders as dividends, or they may retain their earnings. If dividends are distributed, shareholders must pay income tax on those dividends in the current year at their marginal income tax rate, which varies from zero to 50 percent. If earnings are retained by the firm, shareholders can exclude 60 percent of their long-term capital gains from their taxable income in the year they sell their stock. Deferral of the tax until the stock is sold reduces the present value of the tax. In addition, reinvestment of those earnings in the corporate sphere is likely to earn a higher rate of return because of economies of scale in investment.

Once the firm has elected to retain its earnings, shareholders assume greater control over when income is realized for tax purposes. Shareholders may sell their stock when their annual income is low, reducing the marginal income tax rate paid on that income, or they may transfer that stock to an individual with a lower marginal income tax rate like a minor child.

The incentive for a firm to retain its earnings increases as the marginal tax rates of its shareholders increase. When a shareholder's marginal income tax rate is zero, the firm is indifferent between retention of earnings and payment of dividends. On the other hand, when the shareholder's marginal income tax rate is greater than zero, there is a clear incentive toward retention of earnings (See Appendix II).

Smaller firms have a higher rate of earnings retention than larger firms (See Appendix III). In general, smaller firms have a higher proportion of high income tax bracket shareholders, and larger firms have a higher proportion of tax-exempt and low income tax bracket shareholders. In addition, smaller firms must retain earnings as a source of capital expansion because it is harder for them to finance expansion through debt.

Accumulated Earnings Tax

In order to discourage retention of earnings as a tax shelter to individuals, the accumulated earnings tax places a tax on earnings retained beyond the reasonable needs of the business (i.e. profits that could have been distributed as dividends). Those earnings are taxed at the rate of 27.5 percent on the first \$100,000 of retained earnings and 38.5 percent on the balance.

The base of the accumulated earnings tax in any taxable year is the corporation's accumulated taxable income, less the unused portion of the one-time accumulated earnings credit of \$250,000. The accumulated earnings credit allows the accumulation of \$250,000 with impunity until accumulations, including past years, equal \$250,000. Certain adjustments are made to taxable income in deriving accumulated taxable income or dividend paying capacity, including: dividends paid, income and capital gains taxes paid, nondeductible charitable contributions, capital losses and net capital gains.

The approach of the courts has been to permit a firm to finance its operations from retained earnings without borrowing from outside sources. In particular, courts have allowed the following adjustments to taxable income in deriving accumulated taxable income: purchase of a new business, expansion of a current business, and needs for working capital. Therefore, to the extent that it is a proper use of retained earnings, there is an incentive to acquire a firm in a related industry.

TAX-FREE REORGANIZATION

The treatment of corporate reorganizations in the federal tax code may induce one firm to acquire another. In general, an acquisition is treated as a tax-free reorganization when the main consideration is stock because the substance of the acquiror's investment remains the same. As a result, the transferor does not recognize a gain or loss on the transaction; recognition of capital gain or loss is deferred until the stock is sold. The securities or property transferred to the acquiror will have the same basis (substituted) as they did when owned by the transferor. In addition, the acquiror may take advantage of the tax attributes of the transferor, including net operating loss, capital loss, and investment tax credit carryovers and depreciation deductions.

The continuity of interest test must be met in order for the reorganization to be considered tax-free. The test attempts to eliminate sales of a business from being classified as a tax-free reorganization by scrutinizing the transferor's continued participation in the reorganized business. Loss carryovers are completely lost when the acquiror buys 50 percent or more of the stock of the transferor during a two year period, and the transferor's line of business is not continued. If the transferor receives 20 percent or more of the fair market value of the stock of the acquiror, loss carryovers are allowed in full. For each percentage point less than 20 the transferor receives, the loss carryovers are reduced by five percent.

The business purpose test must also be met in order for the reorganization to be considered tax-free. Loss carryovers are not allowed when tax avoidance is the principal purpose of the acquisition transaction.

Section 351(b) of the Internal Revenue Code provides that the receipt of other property or money as consideration (boot) results in the recognition by the transferor of whatever gain is realized to the extent of the boot. The reason is that, to the extent of the boot, the transferor has changed his investment in substance; the boot does not represent a continuing interest in the transferred property as does stock of the acquiror corporation.

CARRYOVER OF TAX ATTRIBUTES

Section 381 of the Internal Revenue Code provides that in most taxfree acquisitions, the acquiror receives the tax attributes of the transferor. These attributes include:

- 1. Net operating loss carryovers;
- 2. Capital loss carryovers;
- 3. Investment tax credit carryovers; and
- 4. Depreciation deductions.

Net Operating Loss Carryovers

When a transferor is acquired in a tax-free reorganization, the acquiror may apply the net operating losses of the transferor against its current taxable income or carry them forward for five years; the acquiror may not carry back the net operating losses of the transferor to offset taxable income in any year prior to the acquisition transaction.

Capital Loss Carryovers

Corporations are taxed at the rate of 28 percent on the excess of net long-term capital gains (gains on assets held over 12 months) over net short-term capital losses. They are taxed at the regular corporate income tax rate on the excess of net short-term capital gains over net long-term capital losses. If the losses exceed the gains, the firm may apply those net losses as short-term capital losses against capital gains in the prior three years and in the subsequent five years.

When a transferor is acquired in a tax-free acquisition, the acquiror may apply the capital losses of the transferor against current capital gains or carry them forward for five years; the acquiror may not carry back the capital losses to any year prior to the transaction.

Investment Tax Credit Carryovers

The investment tax credit (ITC) allows firms to deduct up to ten percent of the cost of a new, used, or leased asset from their tax liability; in effect, the federal government contributes the deducted amount directly toward the purchase of qualified property, reducing the cost of assets to the investor. The ITC applies to Section 38 property which is depreciable machinery and equipment; it does not apply to buildings and their structural components.

Since January 1, 1975, ten percent of the cost of Section 38 prope. I may be deducted for assets whose useful lives are seven years or more, and the ITC is adjusted for assets whose useful lives are less than seven years. After 1982, the ITC cannot exceed the firm's tax liability, and the ITC is limited to \$25,000 plus 85 percent of the tax liability in excess of \$25,000. In a tax-free reorganization, the acquiror may carry back the ITC of the transferor and apply it to its tax liability for up to three years prior to the transaction, and it may carry forward the transferor's ITC and apply it to its tax liability for up to 15 years subsequent to the transaction. After 1982, for the purpose of depreciation, the basis of any Section 38 property must be reduced by 50 percent of the ITC.

Depreciation Deductions

Corporate income tax is paid on the basis of net income. In order to compute net income, expenses are deducted from gross income in the production of that income. The cost represented by the decrease in value of an asset should be deducted over the useful life of that asset; this cost represents the economic depreciation of that asset.

Calculating economic depreciation is problematic. In theory, an asset's cost, less salvage value, should be amortized over the useful life of the asset. In practice, salvage values and useful lives are hard to project. The ability to produce more at a given cost with technologically advanced assets implicitly reduces the value of older assets of a similar type. Therefore, technological advancement should be taken into account in calculating depreciation but will vary substantially by asset type. In addition, inflation will reduce the present value of depreciation deductions so that the real value of the depreciation deductions will be less than the cost of the asset.

The Internal Revenue Service avoids the problematic calculation of economic depreciation by standardizing the useful lives of assets and by recognizing different methods for calculating depreciation. Until 1962, useful lives were determined by reference to the IRS's Bulletin F which contained thousands of standardized asset lives based on the past experiences of taxpayers. In 1962, the IRS developed the Asset Depreciation Range (ADR) system which grouped assets into about 100 broad categories with an ADR guideline life established for each category. The ADR guideline lives were about 30 to 40 percent shorter than the Bulletin F lives and in some instances varied substantially from the ADR guideline lives. This variance was exacerbated by allowing the taxpayer to select an asset life up to 20 percent above or below the ADR guideline life. The Economic Recovery Tax Act of 1981 (ERTA) established the Accelerated Cost Recovery System (ACRS) which grouped all assets into four categories: three-year, five-year, ten-year, and 15-year cost recovery categories. ACRS substantially shortened the statutory lives of assets.

Until 1946, the IRS required use of the straight line method of depreciation. The original cost less salvage value was allocated in equal installments over the useful life of the asset. In 1946, the IRS recognized the declining balance method of depreciation; this method increases the present value of the depreciation deduction to the firm by allowing larger deductions in earlier years. In 1954, the IRS recognized the sum of the year's digits method of depreciation; this method is also more accelerated than straight line. In 1982, ERTA established the ACRS method of depreciation, which is significantly more accelerated than any other method (See Appendix IV).

Because depreciation deductions are applied to gross income in computing net income, they will affect the net operating losses of the firm. Therefore, the ability of an acquiror to take advantage of depreciation deductions of a transferor is based on the provisions of the IRS code that apply to net operating loss carryovers. In addition, in tax-free acquisitions, the combined entity may continue to depreciate the transferor's assets from their substituted basis.

A system of capital recovery based on economic depreciation is perfectly neutral with respect to investment decisions between depreciable and nondepreciable assets. However, a system of capital recovery based on accelerated methods of depreciation (taking into account technological advancement and inflation) and statutory lives that are shorter than useful lives will bias the firm's investment decision toward depreciable assets. The cost of reduction in value of an asset is overstated in the early years; hence, net income and tax liability is understated in early years. An accelerated cost recovery system is therefore analogous to an interest-free loan by the federal government to purchase depreciable assets.

TAXABLE ACQUISITIONS

The treatment of corporate acquisitions in the federal tax code may induce one firm to acquire another. An acquisition is taxable when cash or property is the main consideration of the acquiror and the

transaction does not meet the requirements for a tax-free reorganization. In general, the difference between the adjusted basis of the acquired property and the amount realized is considered to be capital gain or loss to the transferor. The transferor must also assume responsibility for recapture of the investment tax credit and accelerated depreciation deductions. The acquiror may step-up the basis of the acquired assets to their fair market value and take depreciation deductions on the stepped-up basis. The carryover tax attributes of the transferor that are allowed in a tax-free acquisition are lost in a taxable acquisition.

Fair Market Value

The concept of fair market value applies to the stepped-up value of acquired assets and to the valuation of property used as consideration in acquiring those assets. Fair market value is the highest amount the property would realize in alternative use. Fair market value presupposes a competitive market for the property, that there are willing buyers with an ability to buy, and that there are willing sellers with no compulsion to sell. Fair market values must be determinable with a reasonable degree of accuracy as of the date of sale; fair market valuations in retrospect and replacement cost valuations are not legitimate alternatives. The costs of selling the property by a nondealer offset the fair market value of the amount realized for capital gain and loss tax purposes. Such expenses include advertising, commissions, legal fees, maps and title changes.

Goodwill

On the sale of an established business, the purchase price will often exceed the aggregate fair market value of the plant, equipment, fixtures, inventory, accounts receivable, and similar assets. This additional value, known as goodwill, resides in such intangibles as the organization, trained staff, business reputation, established clientele, trade names, location, and operational methods of the firm. The acquiror may not take depreciation deductions on goodwill, but goodwill enters the computation of gain or loss when the firm is sold.

If a business is sold for a lump-sum, the amount attributable to goodwill is sometimes reached by assigning a market value to the plant, equipment, fixtures, inventory, etc., and attributing the residual of the sales price to goodwill. Another method for computing goodwill, which was approved by the IRS, is capitalizing earnings on the basis of five years of business activity. This formula computes average net earnings and deducts a reasonable rate of return on net tangible assets (tangible assets less current liabilities).

Investment Tax Credit Recapture

If a transferor in a taxable acquisition disposes of its property before the end of its useful life (used in computing the investment tax credit), the transferor is subject to recapture provisions under Section 47(a)(1). In the current taxable year, the transferor must increase its tax liability by the amount the credit would decrease if the period of ownership had been substituted for the statutory useful life in computing the credit. While the tax liability in the current year rises by the amount erroneously credited in the prior year in nominal terms, the recaptured amount is generally less in real terms due to discounting and inflation. In addition, the applicable investment tax credit may have increased since the asset was originally purchased, allowing the acquiror to credit a larger amount to its tax liability.

Depreciation Recapture

If a transferor in a taxable acquisition disposes of its property before the end of its useful life (used in computing depreciation deductions), the transferor is subject to recapture provisions under Section 1245. The transferor must report gain on the sale of that property as ordinary income, rather than as capital gain, to the extent of the depreciation deducted from ordinary income in prior years with respect to that property. While income rises in the current year by an amount equal to the amount erroneously deducted from income in prior years in nominal terms, the recaptured amount is generally less in real terms due to discounting and inflation. In addition, the applicable method of depreciation may have become accelerated since the property

was originally purchased, allowing the acquiror to deduct larger portions of its income as depreciation.

Selectivity

In general, there is an incentive to engage in a tax-free acquisition when the adjusted basis of assets is near fair market value. The transferor is not subject to the capital gains tax; the acquiror may benefit from the tax attributes of the transferor; and the acquiror will still benefit from substantial depreciation deductions. In contrast, there is an incentive to engage in a taxable acquisition when the adjusted basis of the assets is low relative to fair market value. The transferor must assume investment tax credit and depreciation recapture and the capital gains tax. However, the acquiror may benefit from the investment tax credit and depreciation deductions on the stepped-up basis, from an increased investment tax credit, and from a more accelerated method of depreciation.

In cases where the transferor has both high and low basis assets relative to fair market value, the acquiror can selectively choose which assets it wishes to step-up and which assets it would prefer to maintain at the substituted basis. It can do this by directly purchasing assets from the firm it wishes to step-up and concurrently acquiring the firm's stock. Selectivity also can be achieved if the transferor, prior to the acquisition, disperses its assets in tax-free transactions among several firms which could be separately purchased. The acquiror could obtain asset purchase treatment for one or more acquired firms while preserving the tax attributes of others.

TREATMENT OF ESTATE TAX

The estate tax taxes the estate of a decedent at rates of up to 65 percent of estates valued at over four million dollars in 1982; payment of the estate tax is generally due within nine months of death. The estate tax does not distinguish between forms of investment; it may affect quite differently those who hold stock in a closely held firm and those who hold stock in a publicly traded corporation. Concern about

the value and liquidity of stock in a closely held firm may lead shareholders in closely held firms to exchange their stock for stock in publicly traded corporations; therefore, there may be an incentive for closely held firms to combine with publicly traded corporations.

When the shareholder of a publicly traded corporation plans his estate, he knows reasonably well the value at which his estate would be taxed currently, and he can plan his estate accordingly. The value of his stock is determined daily by many stock market transactions. In addition, public trading of the stock promises the estate's liquidity.

When the stockholder of a closely held firm plans his estate, he faces greater uncertainty with respect to valuation and liquidity. The absence of public trading of the stock leads to uncertainty in valuation. The IRS attempts to determine fair market value using several guidelines, including asset values, earnings history, and profits. In fact, the IRS relies on the comparable sales approach; the selling prices of comparable firms are taken to be a major indication of the value of the property in question. That value may be inflated by the tax benefits available to a corporate purchaser upon purchase of a comparable firm and may not reflect the value of the firm to its current owner. In general, in order to avoid the risk associated with a wide variance of potential valuations of an estate by the IRS, stockholders of a closely held firm may have an incentive to sell to a publicly traded corporation or engage in a tax-free acquisition.

The assets of a shareholder in a closely held firm are not as liquid as those of a shareholder in a publicly traded firm because the stock is not publicly traded. In addition, anticipated estate tax liability is an improper basis for retention of earnings. The shareholder in a closely held firm may contemplate that his death will require the sale of his interest at a distressed price. In order to avoid a gamble on an estate's liquidity, stockholders of a closely held firm may have a further incentive to sell to a publicly traded corporation or engage in a tax-free acquisition.

Sections 303 and 6166 mitigate somewhat these valuation and liquidity problems. Section 303 assures exchange and not dividend treatment for redemption of closely held stock up to the amount of death taxes and administrative expenses. Section 6166 allows the estate to

defer payment of the estate tax for up to five years and then pay the estate tax in equal installments over the next ten years. The proportion of the tax that may be deferred and paid in installments is equal to the proportion of the closely held stock to the value of the gross estate. The applicable interest rate on these installment payments is the adjusted prime rate as defined in Section 6621. These provisions apply when the value of stock in closely held firms exceeds 35 percent of the value of the gross estate.

CONCLUSIONS

This paper has shown how certain provisions of the federal tax code may induce corporate mergers and acquisitions. To the extent that they result in economies of scale or increased efficiency, mergers and acquisitions may be justified from an economic standpoint. However, to the extent that they are solely an attempt to capture tax benefits at the cost of economic concentration, they may not be justifiable from an economic standpoint. $\rightarrow \rho$ 2

For fiscal years 1983-1985 the federal government will spend, in foregone tax revenue, \$132.48 billion on the investment tax credit and accelerated depreciation provisions, and corporations will receive part of this substantial expenditure as inducement to engage in merger and acquisition activity. In a period of high federal government deficits, which must be financed at high real interest rates, it becomes especially important to look critically at the costs and effects of certain provisions of the federal tax code.

APPENDIX I

INVESTMENT TAX CREDIT ALL INDUSTRIES - 1975

	TOTAL ITC CLAIMED (MILLIONS)	NET INCOME (MILLIONS)	ITC PER \$100 OF NET INCOME	INCOME TAX LIABILITY WITHOUT ITC	ITC PER \$100 OF TAX LIABILITY
ALL	\$15,103	\$239,007	6.32	\$105,142	14.36
SMALL	1,860	29,578	6.29	11,579	16.06
FOURTH TIER	784	17,847	4.39	8,565	9.15
THIRD TIER	715	18,172	3.93	7,842	9.12
SECOND TIER	715	14,833	4.82	6,388	11.19
FIRST TIER	11,021	158,395	6.96	68,764	16.03

Note: Small refers to firms with less than \$5 million in total assets; fourth tier to firms between \$5 million and \$25 million; third tier to firms between \$25 million and \$100 million; second tier to firms between \$100 million and \$250 million; and first tier to firms over \$250 million. Numbers may not add due to rounding.

Source: Internal Revenue Service, Statistics of Income--1980, Corporation Income Tax Returns, Table 6.

APPENDIX II

COMPARISON OF RETENTION OF EARNINGS WITH IMMEDIATE DIVIDEND DISTRIBUTION BY VARIOUS CORPORATION AND SHAREHOLDER INCOME TAX RATES ASSUMING \$100 CORPORATE INCOME

	Share	holder Tax	Rate
RETENTION OF EARNINGS:	0	25	50
Corporation Income Tax Rate = 46%			
Income to Corporation	100	100	100
Tax to Corporation	46	46	46
Capital Gains Tax to Shareholder	0	5.4	10.8
Total Tax	46	51.4	56.8
Net to Shareholder	54 -	48.6	43.2
Corporation Income Tax Rate = 17%			
Income to Corporation	100	100	100
Tax to Corporation	17	17	17
Capital Gains Tax to Shareholder	0	8.3	16.6
Total Tax	17	25.3	33.6
Net to Shareholder	83	74.4	66.4
IMMEDIATE DIVIDEND DISTRIBUTION:			
Corporation Income Tax Rate = 46%			
Income to Corporation	100	100	100
Tax to Corporation	46	46	46
Income Tax to Shareholder	0	13.5	27
Total Tax	46	59.5	73
Net to Shareholder	54	40.5	27
Corporation Income Tax Rate = 17%			
Income to Corporation	100	100	100
Tax to Corporation	17	17	17
Income Tax to Shareholder	0	20.75	41.5
Total Tax	17	37.75	
Net to Shareholder	83	62.25	41 5

APPENDIX III

RATIO OF RETAINED EARNINGS TO NET INCOME ALL CORPORATIONS WITH NET INCOME - 1975

	RETAINED EARNINGS (MILLIONS)	NET INCOME (MILLIONS)	RATIO (%)
ALL	\$1,017,613	\$239,007	4.26
SMALL	158,689	29,578	5.37
FOURTH TIER	42,432	17,847	2.38
THIRD TIER	74,081	18,172	4.08
SECOND TIER	61,624	14,833	4.15
FIRST TIER	647,061	158,395	4.09

Source: Internal Revenue Service, Statistics of Income--1980, Corporation Income Tax Returns, Table 5.

Note: Numbers may not add due to rounding.

APPENDIX IV

COMPARISON OF STRAIGHT LINE, ADR, AND ACRS TAX BENEFITS GENERATED BY PURCHASE OF A NEW \$100,000 DEPRECIABLE ASSET

	Straight					
Year	Line	PV	ADR*	PV	ACRS	PV
1	10,000	9,091	10,000	9,091	7,500	6,818
2	10,000	8,264	18,000	14,876	18,500	15,289
3	10,000	7,513	15,111	11,353	21,500	16,153
4	10,000	6,830	13,333	9,107	21,000	14,343
5	10,000	6,209	11,555	7,175	21,000	13,039
6	10,000	5,645	9,778	5,519	10,500	5,927
7	10,000	5,132	8,000	4,105	**************************************	
8	10,000	4,665	6,222	2,903		
9	10,000	4,241	4,445	1,885		
10	10,000	3,855	2,667	1,028		
11	-	•	889	312		
Total	100,000	61,445	100,000	67,354	100,000	71,569
Tax Bene	efit (0.46)	28,265		30,983		32,92

^{*}Double declining balance with switch to sum of the year's digits after the second year.

Note: Both ADR and ACRS have half year conventions; only half a year's depreciation is taken in the first year; assumes 46 percent corporate income tax rate; ten percent before tax discount rate; all tax benefits, including those in year one, are discounted.

BIBLIOGRAPHY

- Coen, Robert M., "Effects of Tax Policy on Investment in Manufacturing,"

 The American Economic Review 58, pp. 200-211.
- ______, "Tax Policy and Investment Behavior: Comment," The American Economic Review 59, pp. 370-379.
- Crockett, Ulysses S., Jr., "Federal Taxation of Corporate Unifications: A Review of Legislative Policy," Duquesne Law Review 15, pp. 1-30.
- Dertouzos, James N., and Kenneth E. Thorpe, Newspaper Groups: Economies of Scale, Tax Laws and Merger Incentives (Santa Monica, California: The Rand Corporation, R-2878-SBA, June 1982).
- Eisner, Robert, "Tax Policy and Investment Behavior: Comment," The American Economic Review 59, pp. 379-388.
- Feld, Alan A., Tax Policy and Corporate Concentration, (Lexington, Massachusetts: Lexington Books, 1982).
- Feldstein, Martin, "Inflation, Tax Rules and Investment: Some Econometric Evidence," *Econometrica* 50, pp. 825-862.
- Gravelle, Jane G., "The Social Cost of Nonneutral Taxation: Estimates for Nonresidential Capital," in Charles R. Hulten, ed., Depreciation, Inflation, and the Taxation of Income from Capital, (Washington, D.C.: The Urban Institute Press, 1981), pp. 239-250.
- Hall, Robert E. and Dale W. Jorgenson, "Tax Policy and Investment Behavior," The American Economic Review 57, pp. 391-414.
- _____ and _____, "Tax Policy and Investment Behavior: Reply and Further Results," The American Economic Review 59, pp. 388-401.
- Hogarty, Thomas F., "The Profitability of Corporate Mergers," Journal of Business 43, pp. 317-327.
- Jorgenson, Dale W., "Capital Theory and Investment Behavior," The American Economic Review 53, pp. 247-259.
- Journal of Economic Literature 9, pp. 1111-1147.
- ______, Jerald Hunter and M. Ishag Nadiri, "A Comparison of Alternative Econometric Models of Quarterly Investment Behavior," Econometrica 38, pp. 187-212.

- and Calvin D. Siebert, "A Comparison of Alternative Theories of Corporate Investment Behavior," *The American Economic Review* 58, pp. 681-712.
- Mandelker, Gershon, "Risk and Return: The Case of Merging Firms," Journal of Financial Economics (1974), pp. 303-335.
- Mueller, Dennis C., "The Effects of Conglomerate Mergers," Journal of Banking and Finance (1977), pp. 315-347.
- Sandmo, Agnar, "Investment and the Rate of Interest," Journal of Political Economy 79, pp. 1335-1345.
- ______, "Investment Incentives and the Corporate Income Tax," Journal of Political Economy 82, pp. 287-302.
- Shad, John S. R., "The Financial Realities of Mergers," Harvard Business Review (1969), pp. 133-146.
- Sherman, Roger, "How Tax Policy Induces Conglomerate Mergers," National Tax Journal 25, pp. 521-529.
- Stiglitz, Joseph E., "Taxation, Corporate Financial Policy, and the Cost of Capital," Journal of Public Economics 2, pp. 1-34.

END

FILMED

5-85

DTIC